

# Notes on "*Simaethis*" *sapporensis* MATSUMURA with Description of a New Genus of Olethreutinae, Tortricidae

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The late Prof. S. MATSUMURA described many species of Microlepidoptera from Japan in his "6000 illustrated insects of Japan" published in 1931. Until now, many of these forms have been reviewed in the light of recent taxonomic knowledge, but some ones have remained untouched. During the course of preparation of the glyphipterygid volume in "Microlepidoptera Palaearctica", Dr. A. DIAKONOFF examined the holotype of *Simaethis sapporensis* MATSUMURA, one of Glyphipterygids described in MATSUMURA's publication mentioned above. He informed Mr. Y. ARITA of his view that this form should not be referred to the Glyphipterygidae but to the Olethreutinae of the Tortricidae. On the other hand, I found a peculiar olethreutine form in northern Japan, which I consider to represent an undescribed genus. Mr. ARITA kindly sent me a coloured photograph of the type specimen of *S. sapporensis* with a copy of a fine drawing of its genitalia made by Mr. J. J. A. M. WESSENDORP. After referring to those illustrations, I am convinced that the peculiar olethreutine species, which I was just studying, is exactly conspecific with *S. sapporensis*. In accordance with the recommendation by Mr. ARITA, I will take this opportunity to redescribe *S. sapporensis*, and erect a new genus of the Tortricidae for the reception of this interesting form.

Before going further, I wish to express my sincere gratitude to Dr. A. DIAKONOFF, Rijksmuseum van Natuurlijke Historie, Leiden, for his suggestion and kind permission for the use in this article of the elaborate genitalic drawing by Mr. J. J. A. M. WESSENDORP of the same museum. Thanks are also due to Mr. Y. ARITA, Meijo University, Nagoya, and Dr. T. KUMATA, Hokkaido University, Sapporo, for their provision of informations about the type specimen, and to Mr. F. KOMAI, University of Osaka Prefecture, Sakai, for supplying some specimens for the study.

## *Ukamenia* gen. nov.

Type-species: *Simaethis sapporensis* MATSUMURA (Fig. 1).

Antenna shortly ciliated. Proboscis short. Labial palpus (Fig. 2: A) short, ascending; median joint dilated apically with rather rough scales; terminal joint exposed, drooping. Thorax with a posterior crest. Abdomen in male furnished with a pair of semicircular pocket-like structures concealed under normal scaling on 2nd sternite (Fig. 2: B), and with a pair of dorso-lateral tufts of thin scales at its subanal part; female abdomen possessing a ventral pouch at caudal end, which is formed with sub-erected fringe of ventral scaling (Fig. 3: A), terminal part of colliculum being projected out from body in this pouch (see *female genitalia*). Hind tibia normal in female,

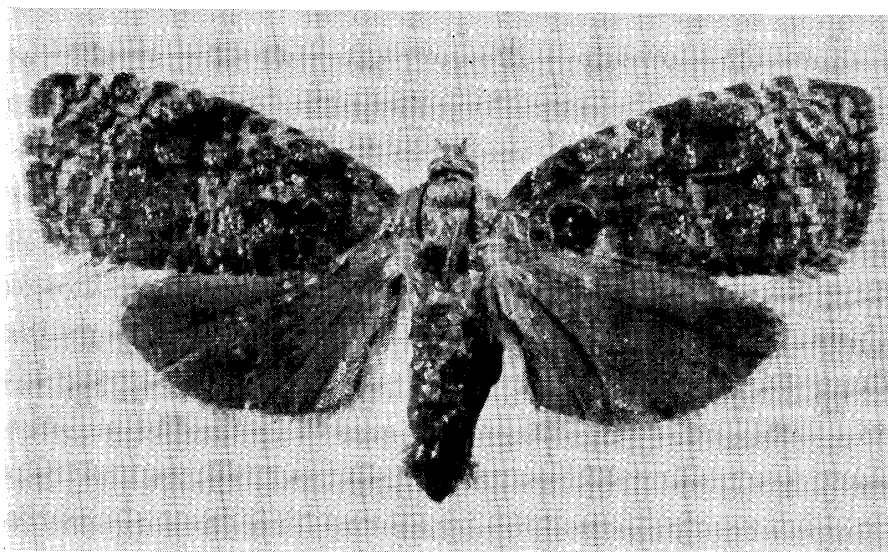


Fig. 1. *Ukamenia sapporensis* (MATSUMURA), ♂ (Gandô, Iwate Pref., 20 June, 1967, bred).

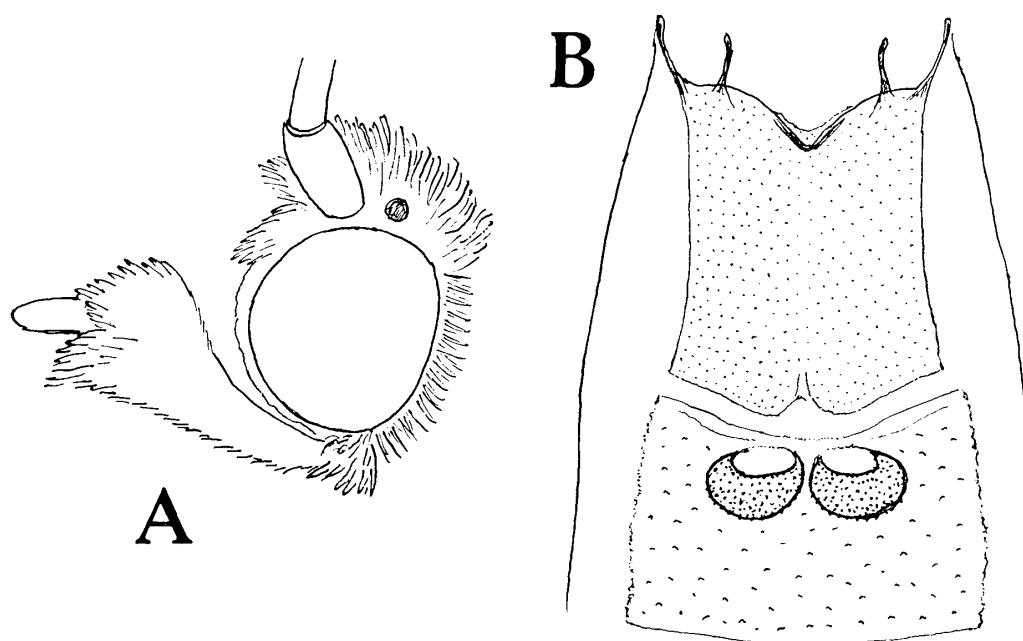


Fig. 2. *Ukamenia sapporensis* (MATSUMURA); head with labial palpus in lateral view (A) and anterior part of male abdomen with pocket-like structures on the second sternite (B).

and extremely widened and thickened with dense scales in male (Fig. 3: B), its inner surface being clothed with blackish scales, except for large subbasal concavity, which is filled with a bulk of minute yellow-whitish scales and covered by a deck of rather broad and elongate greyish-brown scales. Fore wing wide, dilated towards termen; costa arched, often slightly depressed towards apex; costal fold absent; apex rather rounded; termen little oblique, slightly convex; all veins separate (Fig. 4); vein 2 from about basal  $2/3$  of lower margin of cell; 3 sinuate, from lower angle of cell; 4 closely approximated to

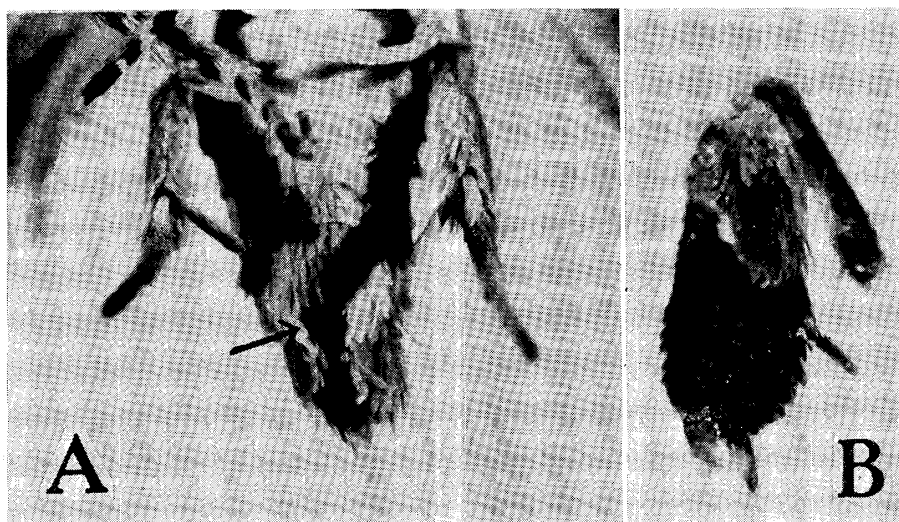


Fig. 3. *Ukamenia sapporensis* (MATSUMURA); caudal end of female abdomen with a specialized ventral pouch designated with the arrow (A), and male hind tibia showing its inner surface (B).

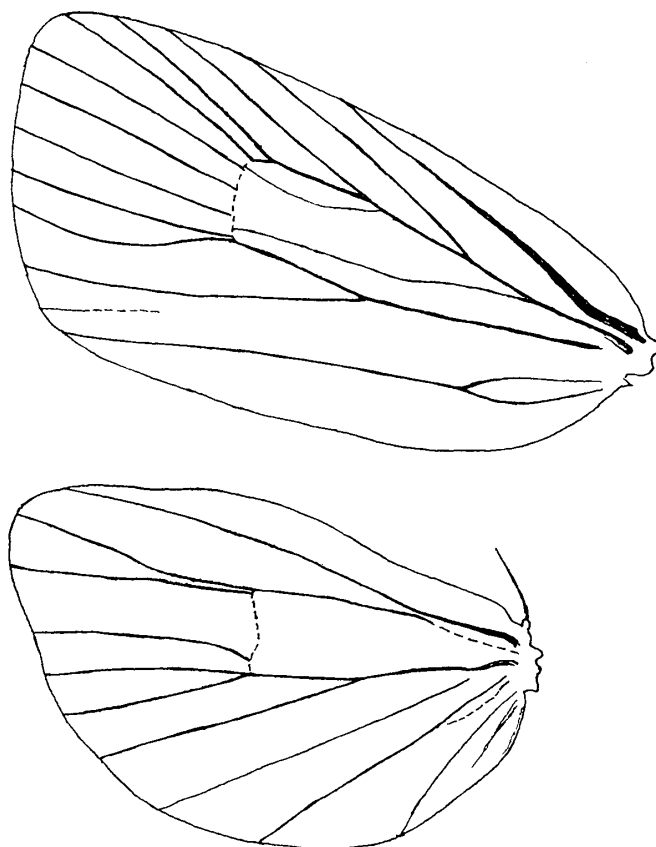


Fig. 4. *Ukamenia sapporensis* (MATSUMURA); wing venation in male.

3 at base; 7 from below upper angle of cell, to termen; 8 from upper angle of cell, nearer to 7 than to 9 at base; 10 nearly equidistant to 9 and 11; 11 from before middle of cell; 12 to about middle of costa; upper parting vein of cell from base of vein 10, to just



Fig. 5. *Ukamenia sapporensis* (MATSUMURA); male genitalia in caudal view, drawn by Mr. WASSENDORF from the holotype.

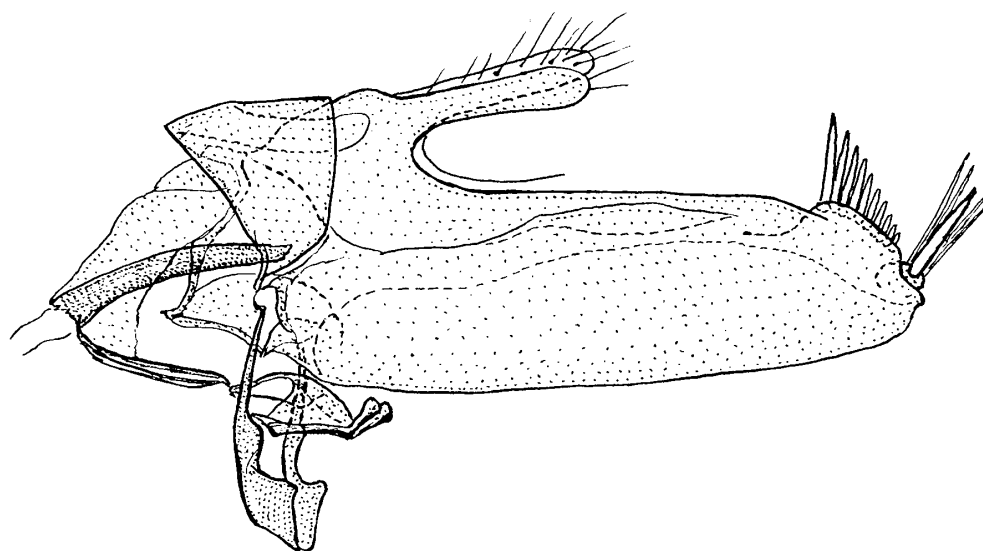


Fig. 6. *Ukamenia sapporensis* (MATSUMURA); male genitalia in lateral view.

above base of 7; lower parting vein from between 11 and 12, to above base of 4. Hind wing (Fig. 4) semioval, with cubital pecten and without basal hair-pencil; in male, lower surface of wing covered with blackish androconial scales; dorso-basal margin of wing in male slightly rolled up; vein 2 from about 3/5 of lower margin of cell; 3 and 4

connate on lower angle of cell; 5 approximated to 4 at base; 6 and 7 closely approximated towards base.

*Male genitalia* (Figs. 5 & 6). Uncus absent; tegumen remarkably specialized, composed of wide semicircular 9th and bilobed 10th tergites, the latter being longitudinally divided at middle, spined on inner surface and fused with costa of valva at its ventro-caudal part; socius rigid, elongate finger-like, projected behind from bilobed part of tegumen, and sparsely spined internally; gnathos absent; valva not completely expansible, longitudinally folded up so as to appress its ventral edge against inner surface of valva below costa; outer surface of valva covered with short hairs, except for folded ventral part sparsely spined; a sinuate subcostal keel of valva interrupted around apical 1/5 of valva, ending in a large subapical harpe, which is crowned with a row of several strong spines; a rounded knob present at apical extremity of valva, set with a sheaf of elongate spines, one of which is very stout; basal part of valva dilated inwards as a flap, of which thickened ventral edge may represent sacculus; lower part of vinculum remarkably protruded below, minutely spined, with a pair of blunt subventral projections behind; aedoeagus long and slender, without cornuti; juxta consisting of an elongate rod supporting aedoeagus and a complicated basal structure; the latter of a trapezoidal plate with a pair of ventral arms, which are projected behind and fused with one another subapically; a weakly chitinized deck from base of aedoeagus to anterior end of 10th tergite, covering over aedoeagus.

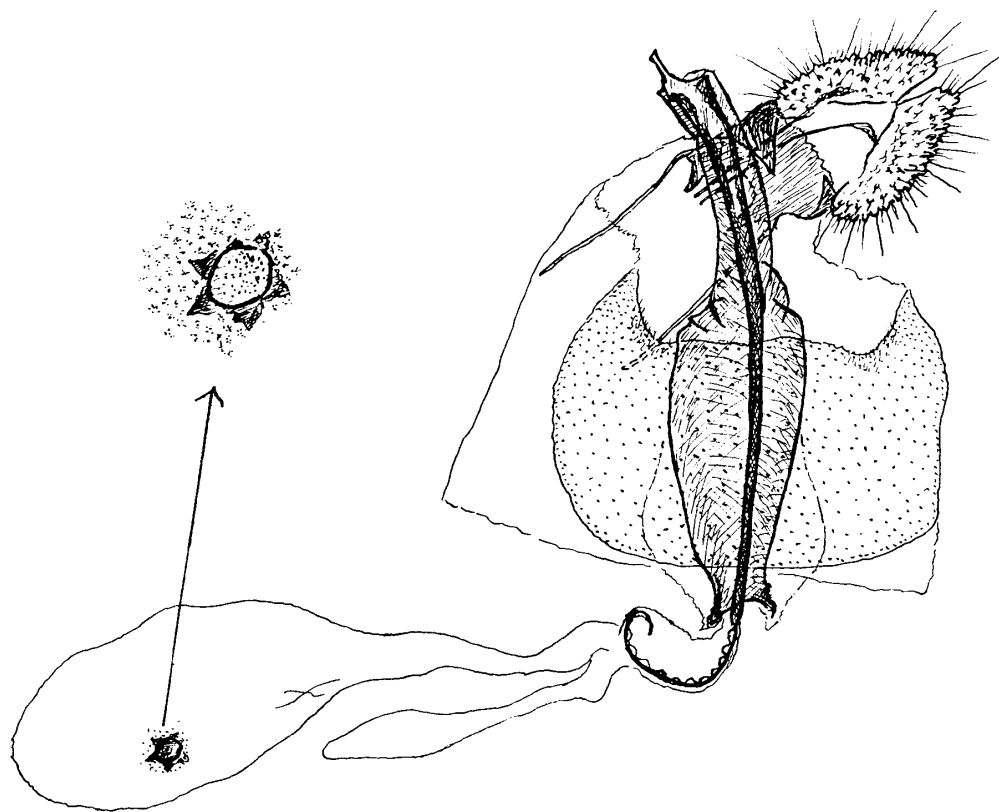


Fig. 7. *Ukamenia sapporensis* (MATSUMURA); female genitalia in ventral view.

*Female genitalia* (Fig. 7). Papillae anales normal, rather wide; colliculum very long, widened on its anterior half concealed within body; its posterior half protruded out from body on caudal margin of 7th sternite; ostium bursae opening at terminal end of exposed part of colliculum, and set with a small marginal projection; membranous part of ductus bursae short, containing a chitinized spiral cord with ragged margin; signum stellate, composed of a circular scobinate patch and several subtriangular marginal plates; 7th sternite weakly sclerotized, very minutely spined around its lateral angles of excavated caudal margin.

*Remarks.* The present genus is undoubtedly placed in the tribe Olethreutini especially on account of the wing venation, the special scaling of hind tibia in male, and the stellate signum in female. Although *Ukamenia* resembles *Gatesclarkeana* of the subtribe Gatesclarkeanae in possessing a pair of pocket-like structures ventrad on the abdomen in male, there are no other characters suggesting a close relation between these two genera. *Ukamenia* also has some affinities to *Eubrochoneura* of the subtribe Zomariae in such female characters as the very long colliculum and the scobinate signum surrounded by subtriangular or petal-like marginal plates (see DIAKONOFF 1973), the latter character being absent in other subtribes. Hence, it seems more likely that *Ukamenia* may be related to *Eubrochoneura*, Zomariae. Most peculiar points of the present genus are in the bilobed 10th tergite and the longitudinally folded valva in male and the anomalous protrusion of colliculum from body in female.

The generic name is derived from an ancient name for a district of the so-called 'Ezo' territory of northern Japan: Ukame-no-kuni (=Nukabe or Nukanobe).

*Ukamenia sapporensis* (MATSUMURA), **comb. nov.** (Fig. 1)

*Simaethis sapporensis* MATSUMURA, 1931, 6000 illustr. ins. Japan: 1080.

♂, ♀. Expanse, 10.5–14.5 mm. Antenna whitish-ochreous, except for dark greyish basal part; head and labial palpus greyish-brown, paler on vertex. Thorax greyish-brown, with two darker transverse streaks with bluish-metallic gloss; posterior crest dark grey. Abdomen dark brownish-grey in male and greyish-brown in female dorsally, and pale greyish-brown ventrally. Legs light greyish-brown, with darker tarsal annulation; hind tibia in male very wide, blackish internally, with a subbasal concavity (see generic description for detail). Fore wing dark grey in ground; an irregular costal patch rosy-red, at about basal 1/3 of wing, edged with white along extreme costa, and entangled with a roughly V-shaped bluish-metallic mark, which is followed below by a series of metallic spots and a few interrupted streaks of ochreous-brown; all these markings forming an obscure multicoloured fascia, which extends to middle of dorsum obliquely; basal area delimited by this fascia, sprinkled with some bluish-metallic and ochreous-brown dots; median area beyond this fascia scattered with several bluish-metallic dots on its dorsal 2/3; terminal area of wing widely rosy-red, obliquely striated and spotted with dark grey and bluish-metallic colour, and marked with three pairs of minute whitish strigulae along costa; inner margin of terminal area somewhat concave, running from apical 2/5 of costa to tornus; cilia brownish-grey, paler around tornus. Hind wing brownish-grey, darker towards apex; cilia grey-whitish, with a brownish-grey subbasal line; lower surface of wing blackish in male and pale greyish

with darker marginal suffusion in female.

Genitalia, as described for the genus.

*Specimens examined.* Holotype (♂)——Hokkaido; Sapporo, Aug., 1907 (without date), S. MATSUMURA coll., in the Entomological Institute, Hokkaido University. Additional specimens examined——Honshu: Morioka, Iwate Pref., 1 ♂ (6 July, 1967), 1 ♂ (18 Sept., 1970), 1 ♂ (10 July, 1979), Tsunagi spa, Iwate Pref., 1 ♂ (24 June, 1967, bred from pupa on *Hamamelis japonica*), Takizawa, Iwate Pref., 1 ♀ (19 June, 1971, bred from larva on *Vaccinium oldhami*), Gandô, Iwate Pref., 1 ♂ (20 June, 1967, bred from larva on *Quercus mongolica* var. *grosserrata*), Kawaranobô, Mt. Hayachine, 1 ♂ (26 July, 1978) T. OKU coll.; Mt. Takadate, Yamagata Pref., 1 ♂ (22 Aug., 1970), T. OKU & K. SHIRAHATA coll.; Hida-Nyugawa, Gifu Pref., 1 ♂ (6 July, 1967), S. ISSIKI coll.; Nose, Osaka, 1 ♂ 1 ♀ (28 Sept., 1978, bred from larvae on *Castanea crenata*), M. WATANABE coll.

*Distribution:* Japan (Hokkaido, Honshu).

*Remarks.* Some conspicuous points in the external features such as the rosy-red markings of the fore wing are missed in the original description by MATSUMURA (1931), probably because of the very bad conditions of the male type specimen in Hokkaido University. The present redescription is based on additional fresh specimens. The specimens herein used are obtained from late June to late September. This prolonged period of adult occurrence suggests a bivoltine cycle of the species. The specimens caught in the second half of the period are smaller than those in the first half. The larvae were usually within spun leaves of deciduous trees and shrubs, but two specimens from Nose were found to feed in galls made by the chestnut gall wasp, *Dryocosmus kuriphilus* YASUMATSU.

## References

- DIAKONOFF, A., 1973. The south Asiatic Olethreutini (Lepidoptera, Tortricidae). Zool Monogr. Rijksmus. Nat. Hist., Leiden. 699 pp. E. J. Brill, Leiden.  
MATSUMURA, S., 1931. 6000 illustrated insects of Japan. 1497 pp. Toe-Shoin, Tokyo.

## 摘 要

*Simaethis sapporensis* MATSUMURA サップロハマキモドキは、故松村松年教授によって、札幌産の雄個体に基き、刀江書院発行の日本昆虫大図鑑(1931)の中で、ハマキモドキ科の新種として記載されたものである。しかし、A. DIAKONOFF 博士は、模式標本を精査した結果、本種がハマキガ科に移されるべきものであることを確認した。他方、筆者は、本州産の極めて特異な、一見ハマキモドキに類似するハマキガの1種があることに気付いていたが、最近、これがいわゆるサップロハマキモドキに他ならないことを知った。そこで、ここに、本種を模式種とするハマキガ科の新属 *Ukamenia* を設けた。なお、原記載は、不完全な個体に基くもので、種の特徴をよく現していないので、再記載した。幼虫は広葉樹の葉を食し、成虫は6月下旬～9月下旬に発見されている。

付記。所属科の変更に伴い、和名としては仮にサップロハマキと呼ぶのが便利であろう。